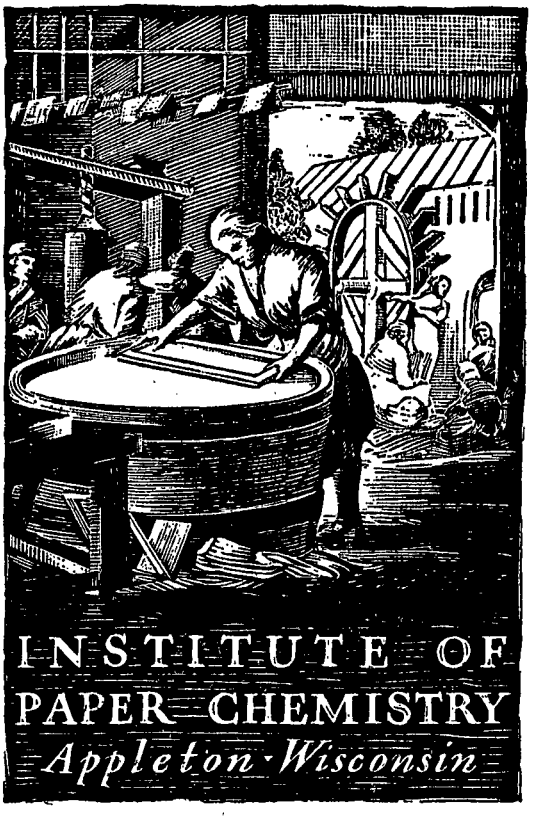


CONTINUOUS BASELINE STUDY

Project 1108-13

Progress Report 109

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

August 1, 1956

Your mills are identified by the following code letters in this report:

Mill	Code Letter
Jacksonville	K
Valdosta	L

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

Project 1108-13

Progress Report 109

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

August 1, 1956

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

In conjunction with the F.K.I. Continuous Baseline Study, The Institute of Paper Chemistry has been directed to identify the participating mills by means of a scrambled system of code letters. Under this system, which was initiated in Progress Report 105, each mill is identified by a code letter different from that used for the previous month.

During the period from July 1 to July 31, eighty-six different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by seventeen different F.K.I. mills to The Institute of Paper Chemistry for testing. In addition to the samples of 42-lb. kraft linerboard, one sample of drum linerboard and two samples of miscellaneous linerboard were submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	4
B	8
C	8
D	8
E	6
F	2
G	9
H	1
I	8
J	1

TABLE I--Continued

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
K	2
L	4
M	8
N	4
O	2
P	6
Q	5
Total	86

These sample lots were tested for basis weight, caliper, bursting strength, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 5. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average is based on the results for the previous twelve months excluding the current period. Hence, in the case of the current report, it covers the period from July 1, 1955 to June 30, 1956. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 42.9 lb., and the cumulative F.K.I. average basis weight

is also 42.9 lb. Hence, the index for basis weight determined in per cent as indicated above is 100.0. This signifies that the current average basis weight is the same as the cumulative average.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills conform to the 42-lb. specification set forth in Rule 41. Mill I has the highest average basis weight, it being 43.8 lb. or approximately 4.3% higher than the 42-lb. specification. On the other hand, Mill H has the lowest average basis weight, it being 42.0 lb. or exactly the same as the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+1.2
B	+1.2
C	+1.2
D	+3.1
E	+1.7
F	+4.0
G	+1.7
H	0.0
I	+4.3
J	+2.9
K	+1.0
L	+3.3
M	+3.6
N	+0.5
O	+4.0
P	+0.7
Q	+2.4

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have decreased slightly from 43.0 lb. to 42.9 lb.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 11.6 points for Mill H to a high of 14.0 points for Mill M. The current F.K.I. average is 12.7 points, the same as the cumulative F.K.I. average.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II and Figure 3 that the average bursting strength values for the various mills range from a low of 101 for Mill K to a high of 113 for Mill C. The current F.K.I. average bursting strength is 107, slightly lower than the cumulative F.K.I. average of 109.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 4 and 5. The data of Table II show that Mill O has the highest average machine direction tear value of 400 units whereas Mill A has the lowest value of 305 units. Mill O also has the highest cross-machine direction tear value of 408 units, and Mill N has the lowest value of 352 units. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are slightly lower than the respective cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the current F.K.I. averages for basis weight and caliper are the same as the cumulative F.K.I. averages, whereas the current F.K.I. averages

for bursting strength and Elmendorf tear are slightly lower than the respective cumulative F.K.I. averages.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XIX for Mills A to Q, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill for the previous twelve months excluding the current period. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor (\%)}$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index (\%)}$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XX.

It may be noted in Tables III through XX that the test data include information about the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
A	4[a]		
B	8		
C			8[b]
D	8		
E	6		
F	2[a]		
G	9		
H	1		
I	8		
J	1[a]		
K	2		
L	4		
M	8		
N	4		
O	2		
P	6[a]		
Q	5		
R[c]	1		

[a] One side only.
[b] Sheet finish not reported.
[c] Drum linerboard.

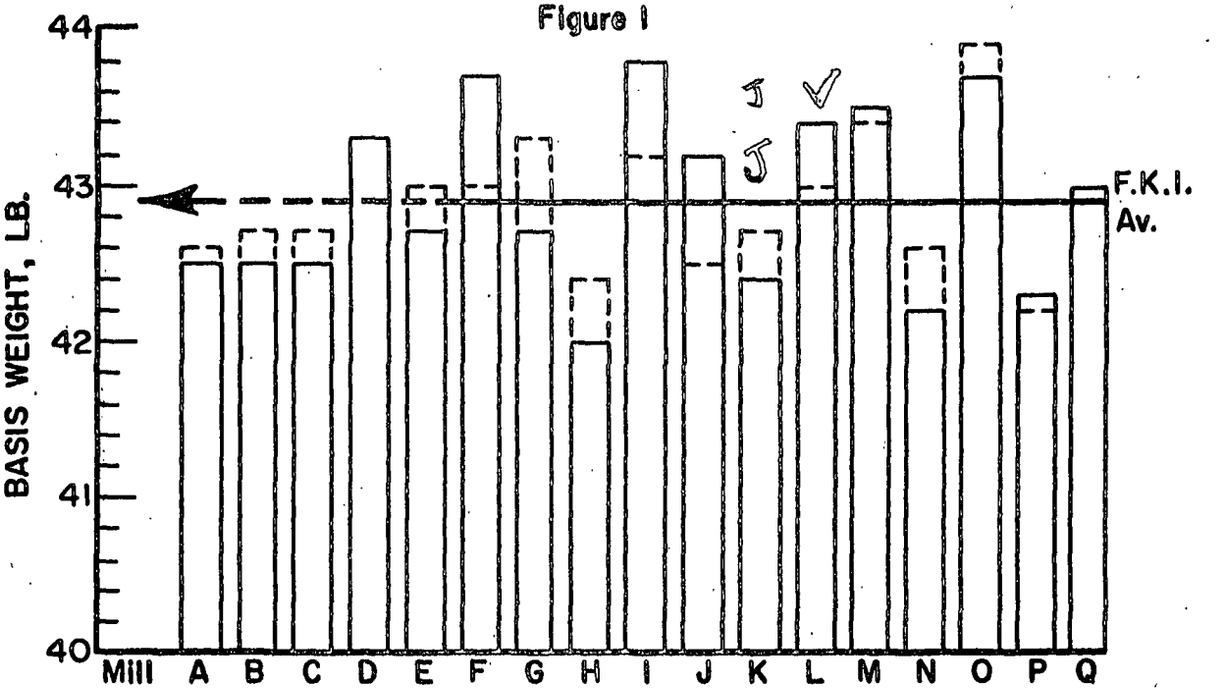
The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--JULY 1 THROUGH JULY 31, 1956

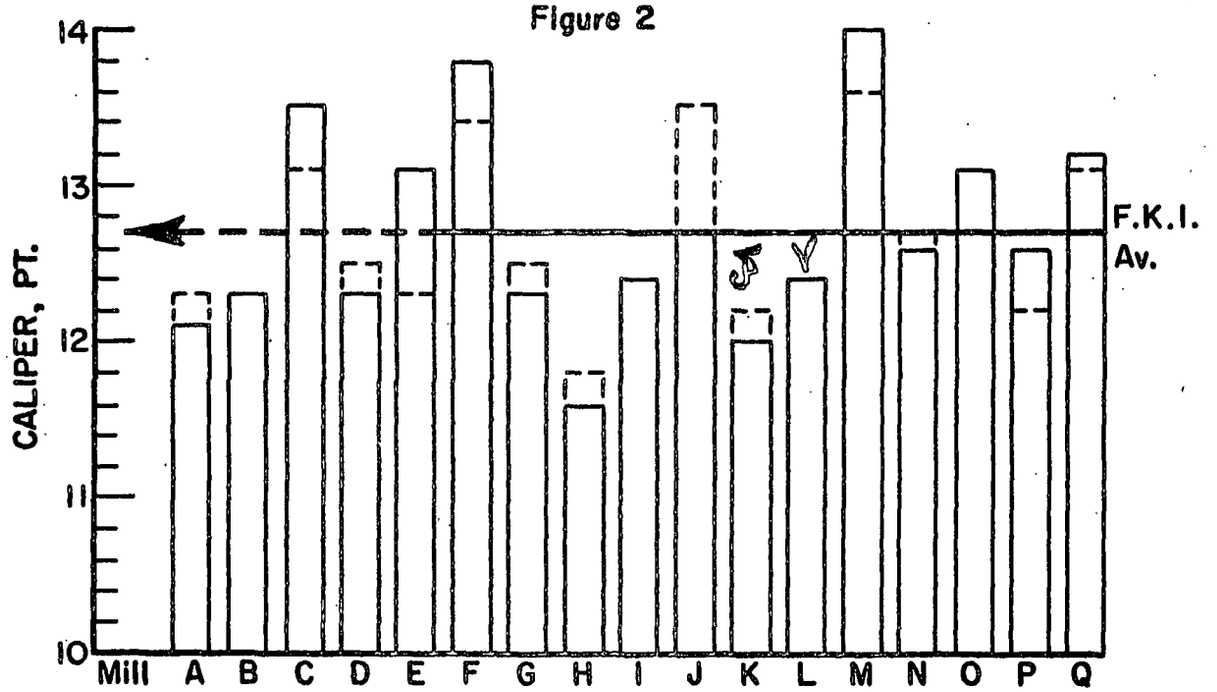
Mill	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	Elmendorf Tear, g./sheet	
				In Machine	Cross Machine
A	42.5	12.1	108	305	366
B	42.5	12.3	106	334	379
C	42.5	13.5	113	318	378
D	43.3	12.3	108	322	360
E	42.7	13.1	106	316	360
F	43.7	13.8	107	333	373
G	42.7	12.3	110	346	366
H	42.0	11.6	104	353	375
I	43.8	12.4	110	329	374
J	43.2	12.7	109	330	363
K	42.4	12.0	101	374	399
L	43.4	12.4	104	342	374
M	43.5	14.0	106	335	374
N	42.2	12.6	108	347	352
O	43.7	13.1	105	400	408
P	42.3	12.6	103	375	397
Q	43.0	13.2	108	349	375
Current FKI Average:	42.9	12.7	107	342	375
Cumulative FKI Average:	42.9	12.7	109	348	380
FKI Index, %	100.0	100.0	98.2	98.3	98.7

Figure 1



COMPARISON OF BASIS WEIGHT RESULTS
(Period July 1 – July 31, 1956)

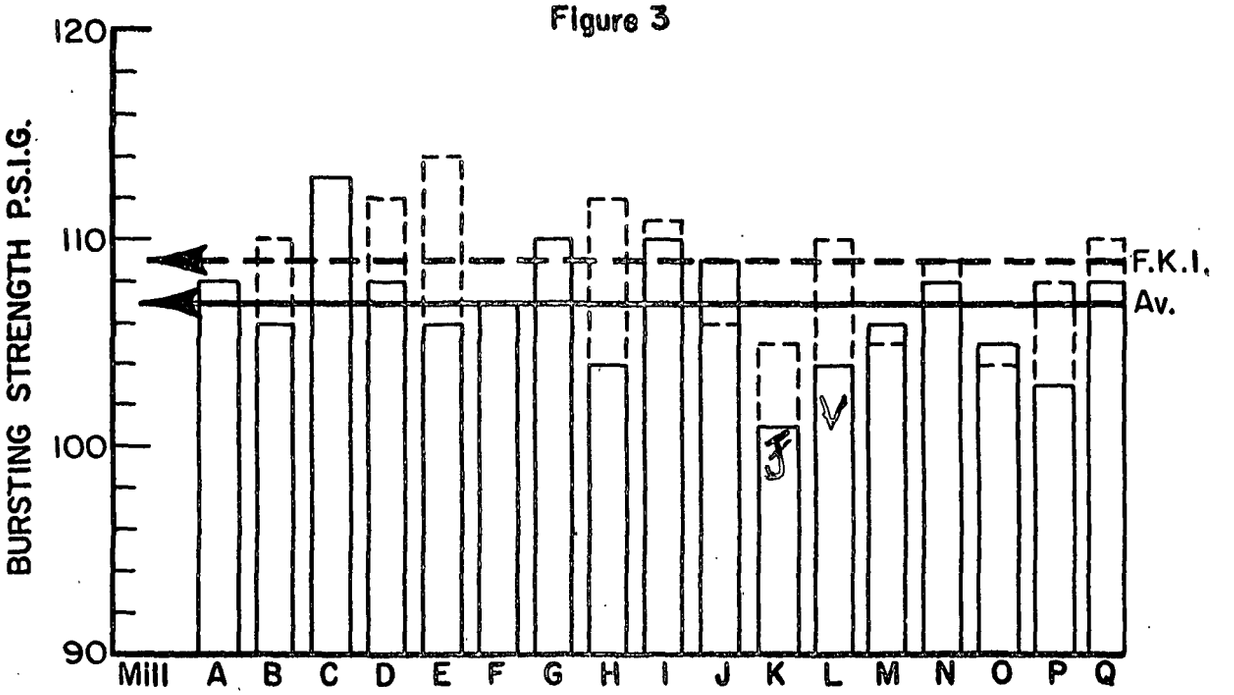
Figure 2



COMPARISON OF CALIPER RESULTS
(Period July 1 – July 31, 1956)

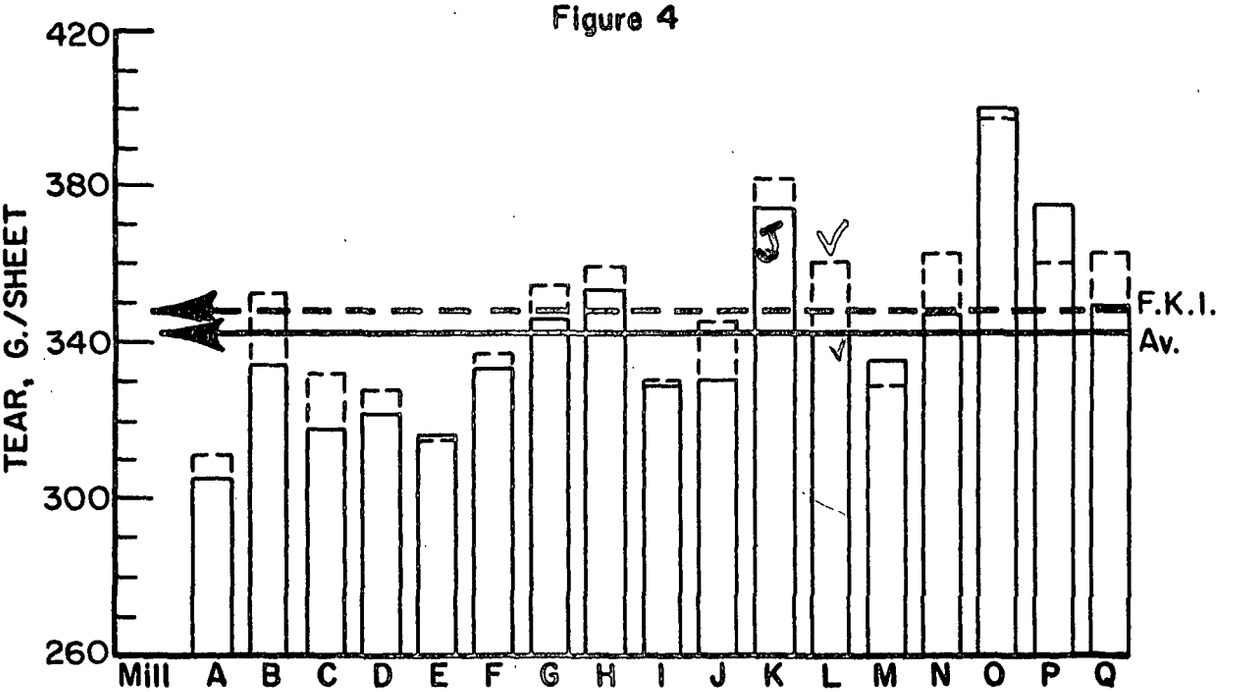
——— Current mill average
– – – – – Cumulative mill average

Figure 3



COMPARISON OF BURSTING STRENGTH RESULTS
(Period July 1 – July 31, 1956)

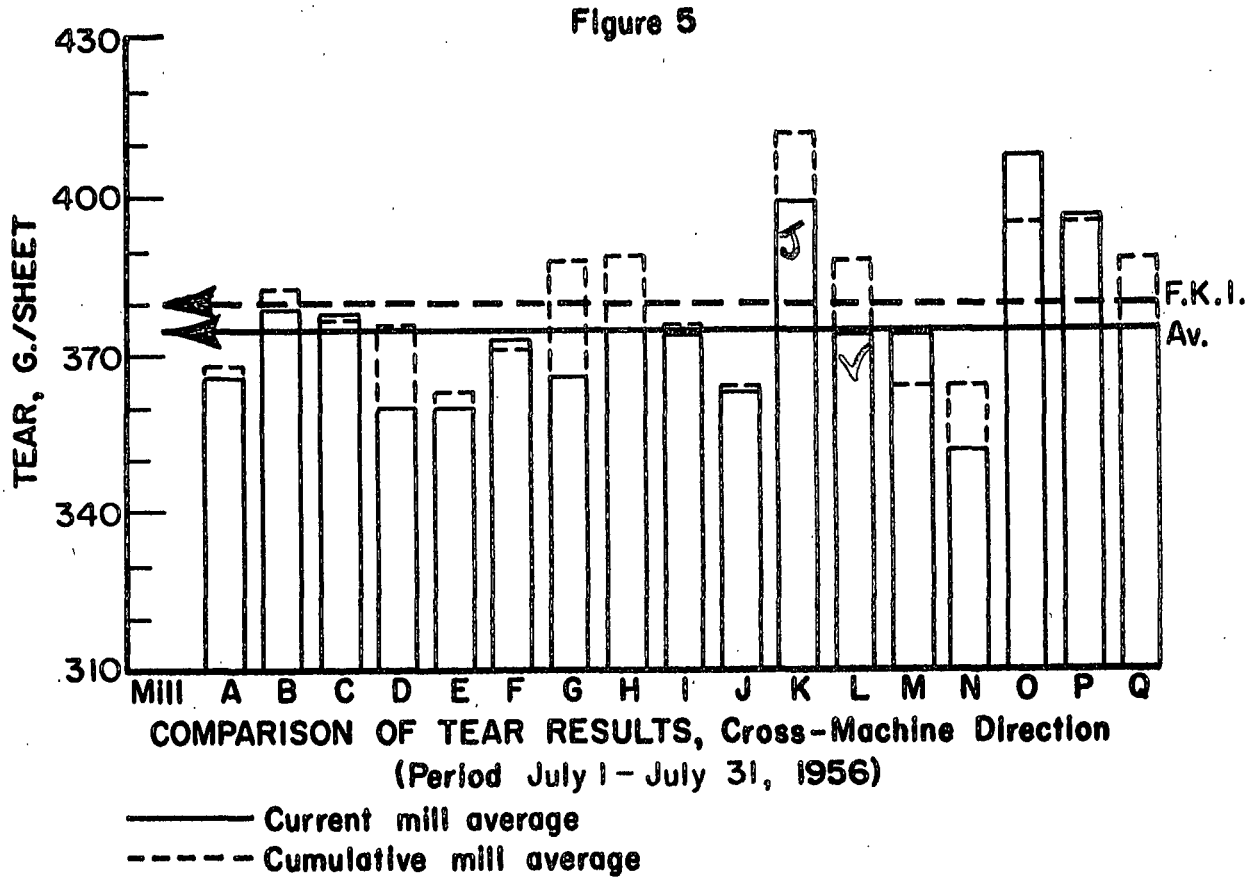
Figure 4



COMPARISON OF TEAR RESULTS, Machine Direction
(Period July 1 – July 31, 1956)

——— Current mill average
– – – – – Cumulative mill average

Figure 5


430
400
370
340
310
TEAR, G./SHEET
F.K.I.
Av.
Mill A B C D E F G H I J K L M N O P Q
COMPARISON OF TEAR RESULTS, Cross-Machine Direction
(Period July 1 - July 31, 1956)
Current mill average
Cumulative mill average

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956

TABLE III

MILL A -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170420	WF1S	7/ 3/56	6/25/56	1	44.0	41.0	42.4	12.6	11.8	12.1	127	92	105	352	256	313[a]	368	336	354[a]
170415	WF1S	7/ 2/56	6/28/56	1	43.6	41.4	42.7	12.6	11.8	12.1	138	89	109	344	248	299	392	328	365[a]
170609	WF1S	7/ 9/56	7/ 5/56	1	43.6	41.6	42.5	12.6	11.8	12.1	142	76	109	376	256	301[a]	416	336	371[a]
170918	WF1S	7/23/56	7/ 6/56	1	43.4	41.6	42.4	12.7	11.9	12.2	132	78	108	336	272	305[a]	432	328	371[a]
Current Mill Average:							42.5			12.1			108			305			366
Cumulative Mill Average:							42.6			12.3			107			311			368
Mill Factor, %							99.8			98.4			100.9			98.1			99.5
Mill Index, %							99.1			95.3			99.1			87.6			96.3

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE IV

MILL B — 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170413	W.F.	7/ 2/56	6/26/56	2	42.2	41.8	42.1	12.5	11.5	12.1	142	90	113	432	312	348[a]	464	360	400[a]
170414	W.F.	7/ 2/56	6/27/56	2	43.8	42.4	43.1	12.9	12.0	12.4	119	76	100	352	280	320	424	328	369[a]
170627	W.F.	7/10/56	7/ 2/56	2	43.4	42.0	42.4	12.9	11.8	12.2	133	84	108	416	304	345[a]	432	352	382[a]
170628	W.F.	7/10/56	7/ 3/56	2	42.6	42.0	42.3	12.7	11.4	12.1	124	65	106	360	272	331[a]	424	360	386[a]
170745	W.F.	7/16/56	7/ 8/56	2	43.6	42.0	42.4	12.7	11.8	12.2	134	77	107	416	304	351	432	344	382[a]
170746	W.F.	7/16/56	7/ 9/56	2	44.0	41.8	42.6	13.1	12.1	12.6	117	73	99	408	296	357[a]	416	352	384[a]
170916	W.F.	7/23/56	7/15/56	2	43.6	42.2	42.8	12.8	12.0	12.4	118	90	104	328	264	303[a]	400	312	339[a]
170917	W.F.	7/23/56	7/15/56	2	43.0	42.2	42.6	12.6	11.9	12.1	133	87	111	352	280	317[a]	440	344	388[a]
Current Mill Average:							42.5			12.3			106			334			379
Cumulative Mill Average:							42.7			12.3			110			352			383
Mill Factor, %							99.5			100.0			96.4			94.9			99.0
Mill Index, %							99.1			96.9			97.2			96.0			99.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE V

MILL C -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170403		7/ 2/56	6/ 4/56	1	43.0	42.2	42.5	14.1	13.1	13.6	136	99	117	352	256	312[a]	416	328	380[a]
170404		7/ 2/56	6/ 8/56	1	43.8	42.0	42.9	14.0	13.1	13.6	139	78	115	360	256	312	416	344	383[a]
170417		7/ 2/56	6/11/56	1	43.0	41.8	42.2	14.1	12.9	13.4	130	83	111	416	272	334[a]	504	328	377[a]
170418		7/ 2/56	6/14/56	1	43.0	41.8	42.5	14.0	13.2	13.6	140	77	110	384	272	321[a]	416	328	377[a]
170421		7/ 3/56	6/19/56	1	42.2	41.6	42.0	13.5	12.5	13.0	130	90	108	392	264	330[a]	432	336	374[a]
170422		7/ 3/56	6/23/56	1	43.0	41.8	42.2	14.0	12.2	12.8	143	96	119	360	288	317[a]	432	352	379[a]
170748		7/16/56	6/26/56	1	44.0	42.0	42.6	14.3	13.2	13.7	130	89	113	328	272	299	432	312	374[a]
170749		7/16/56	6/29/56	1	43.6	42.0	43.0	14.9	13.3	14.1	137	89	110	368	272	319	432	336	378[a]
Current Mill Average:							42.5			13.5			113			318			378
Cumulative Mill Average:							42.7			13.1			113			332			377
Mill Factor, %							99.5			103.1			100.0			95.8			100.3
Mill Index, %							99.1			106.3			103.7			91.4			99.5

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE VI

MILL D -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170410	W.F.	7/ 2/56	6/25/56	1	44.0	42.4	43.2	12.9	12.0	12.3	134	85	113	384	296	331[a]	384	336	355[a]
170411	W.F.	7/ 2/56	6/26/56	1	44.2	43.0	43.7	12.9	12.2	12.6	126	93	110	400	312	346[a]	408	328	363[a]
170671	W.F.	7/12/56	7/ 2/56	2	44.0	42.2	43.2	13.0	12.0	12.3	118	80	106	368	272	332	416	352	373[a]
170672	W.F.	7/12/56	7/ 2/56	2	44.0	42.0	43.3	12.5	11.5	12.0	134	91	108	384	288	325[a]	400	320	364[a]
170771	W.F.	7/17/56	7/ 8/56	1	44.2	42.2	43.4	12.3	11.4	12.0	117	89	103	368	272	317[a]	352	320	339[a]
170772	W.F.	7/17/56	7/10/56	1	43.6	41.8	42.9	13.3	12.3	12.7	117	81	103	320	256	294[a]	384	312	348[a]
170980	W.F.	7/25/56	7/15/56	2	43.6	42.0	42.8	12.5	11.2	12.0	134	89	111	376	288	322	400	328	371[a]
170981	W.F.	7/25/56	7/19/56	1	44.0	43.0	43.7	12.8	12.0	12.3	125	92	108	344	280	310[a]	408	344	370[a]
Current Mill Average:							43.3			12.3			108			322			360
Cumulative Mill Average:							43.3			12.5			112			328			376
Mill Factor, %							100.0			98.4			96.4			98.2			95.7
Mill Index, %							100.9			96.9			99.1			92.5			94.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE VII

MILL E -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170399	W.F.	7/ 2/56	6/19/56	1	43.8	41.8	42.5	14.0	12.8	13.2	120	68	106	368	288	319	392	328	347[a]
170419	W.F.	7/ 3/56	6/28/56	1	43.4	41.8	42.5	13.5	12.5	13.1	122	84	104	368	264	320[a]	408	336	371[a]
170921	W.F.	7/23/56	7/ 2/56	1	44.0	42.2	43.0	14.0	12.6	13.1	125	88	104	376	272	312[a]	416	328	362[a]
170941	W.F.	7/24/56	7/10/56	1	43.8	42.0	42.7	13.8	12.8	13.2	129	95	111	400	248	317	392	320	357[a]
170942	W.F.	7/24/56	7/12/56	1	43.0	41.8	42.2	13.3	12.8	13.1	119	83	101	376	272	331	400	336	367[a]
170995	W.F.	7/26/56	7/16/56	1	44.0	42.0	43.2	13.2	12.5	13.0	134	79	112	352	240	300[a]	384	320	359[a]
Current Mill Average:							42.7			13.1			106			316			360
Cumulative Mill Average:							43.0			12.3			114			315			363
Mill Factor, %							99.3			106.5			93.0			100.3			99.2
Mill Index, %							99.5			103.1			97.2			90.8			94.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE VIII

MILL F -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170416	WF1S	7/ 2/56	6/27/56	1	44.6	42.4	43.8	13.6	12.3	13.0	138	85	114	416	264	328[a]	416	328	373[a]
170943	WF1S	7/24/56	7/19/56	1	44.4	42.4	43.6	16.1	13.8	14.6	120	82	100	400	288	338[a]	400	352	373[a]
Current Mill Average:							43.7			13.8			107			333			373
Cumulative Mill Average:							43.0			13.4			107			337			371
Mill Factor, %							101.6			103.0			100.0			98.8			100.5
Mill Index, %							101.9			108.7			98.2			95.7			98.2

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE IX

MILL G -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170642	S.F.	7/11/56	7/ 1/56	4	43.6	41.6	42.3	13.1	11.6	12.2	125	79	108	472	296	378[a]	392	304	352[a]
170643	W.F.	7/11/56	7/ 2/56	4	44.2	42.0	43.0	13.7	11.7	12.3	140	97	114	400	280	338[a]	448	344	389[a]
170644	W.F.	7/11/56	7/ 3/56	4	44.0	42.4	43.4	12.5	11.5	12.0	131	102	117	432	280	341[a]	416	320	362[a]
170912	W.F.	7/23/56	7/15/56	-	43.0	42.0	42.2	13.6	12.2	12.9	117	86	103	496	304	385[a]	400	336	366[a]
170913	W.F.	7/23/56	7/16/56	-	44.0	42.2	43.3	12.9	12.0	12.3	123	85	105	464	312	353[a]	400	320	363[a]
170914	W.F.	7/23/56	7/17/56	-	43.2	42.0	42.3	12.5	11.5	11.9	130	94	114	368	248	325[a]	376	328	355[a]
170998	W.F.	7/27/56	7/18/56	-	44.4	44.0	44.2	13.0	12.2	12.6	136	95	119	376	304	335[a]	432	360	390[a]
170999	W.F.	7/27/56	7/19/56	-	42.0	40.0	41.2	13.0	11.8	12.4	125	81	108	384	280	335[a]	400	320	361[a]
171000	W.F.	7/27/56	7/20/56	-	43.8	42.0	42.8	12.5	11.0	11.8	119	77	104	408	256	324[a]	432	320	354[a]
Current Mill Average:							42.7			12.3			110			346			366
Cumulative Mill Average:							43.3			12.5			110			354			388
Mill Factor, %							98.6			98.4			100.0			97.7			94.3
Mill Index, %							99.5			96.9			100.9			99.4			96.3

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE X

MILL H -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170409	W.F.	7/2/56	6/ 8/56	4	42.6	41.6	42.0	12.0	11.2	11.6	120	91	104	384	296	353[a]	432	336	375[a]
Current Mill Average:							42.0			11.6			104			353			375
Cumulative Mill Average:							42.4			11.8			112			359			389
Mill Factor, %							99.1			98.3			92.9			98.3			96.4
Mill Index, %							97.9			91.3			95.4			101.4			98.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XI

MILL I -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strengtb, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170423	W.F.	7/ 3/56	6/20/56[b]	2	44.2	42.6	43.7	13.1	12.0	12.7	129	78	105	352	272	315[a]	424	336	377[a]
170424	W.F.	7/ 3/56	6/20/56	2	44.0	42.4	43.6	12.9	11.9	12.3	141	91	116	352	264	308[a]	472	352	377[a]
170673	W.F.	7/12/56	6/20/56	2	44.2	42.2	43.2	12.5	11.9	12.1	141	91	114	368	280	310[a]	424	344	377[a]
170674	W.F.	7/12/56	6/20/56	2	44.6	42.6	43.5	13.0	12.0	12.4	144	95	116	384	256	318[a]	400	320	364[a]
170675	W.F.	7/12/56	6/26/56	1	45.8	42.2	44.0	13.0	12.0	12.5	135	84	106	392	304	343[a]	416	336	371
170825	W.F.	7/18/56	6/26/56	1	45.2	43.6	44.2	12.9	11.9	12.5	144	85	112	368	288	343[a]	448	320	377[a]
170826	W.F.	7/18/56	6/26/56	1	45.4	42.4	44.2	13.0	11.3	12.4	125	75	105	376	264	345[a]	408	336	379[a]
170827	W.F.	7/18/56	6/26/56	1	45.0	43.8	44.2	13.0	12.0	12.5	132	84	106	408	320	348[a]	400	312	371[a]
Current Mill Average:							43.8			12.4			110			329			374
Cumulative Mill Average:							43.2			12.4			111			330			376
Mill Factor, %							101.4			100.0			99.1			99.7			99.5
Mill Index, %							102.1			97.6			100.9			94.5			98.4

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b]This date appeared on the sample received by the Institute. The mill data sheet gives the date of manufacture as June 2, 1956.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XII

MILL J -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170747	WF1S	7/16/56	7/12/56	2	44.0	42.2	43.2	13.3	12.2	12.7	132	83	109	384	296	330[a]	480	304	363[a]
Current Mill Average:							43.2			12.7			109			330			363
Cumulative Mill Average:							42.5			13.5			106			345			364
Mill Factor, %							101.6			94.1			102.8			95.7			99.7
Mill Index, %							100.7			100.0			100.0			94.8			95.5

TABLE XIII

MILL K -- 42-LB. LINERBOARD

171001		7/27/56	6/19/56		43.6	40.6	41.9	12.3	11.2	11.8	122	81	101	424	296	371[a]	424	352	391[a]
171002		7/27/56	6/27/56		44.0	41.4	43.0	12.7	11.3	12.2	117	79	101	432	328	377[a]	448	368	407[a]
Current Mill Average:							42.4			12.0			101			374			399
Cumulative Mill Average:							42.7			12.2			105			381			412
Mill Factor, %							99.3			98.4			96.2			98.2			96.8
Mill Index, %							98.8			94.5			92.7			107.5			105.0

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XIV

MILL L -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	Elmendorf Tear, g./sheet In Max.	In Min.	In Av.	Across Max.	Across Min.	Across Av.
170890	W.F.	7/20/56	7/ 9/56	-	44.2	41.8	43.3	13.6	12.0	12.8	120	79	102	400	304	344[a]	432	344	383[a]
170891	W.F.	7/20/56	7/ 9/56	-	44.2	42.0	43.3	13.3	12.0	12.6	123	82	101	416	288	343[a]	392	320	361[a]
170892	W.F.	7/20/56	7/11/56	-	44.6	42.0	43.4	12.7	11.7	12.1	126	86	107	392	312	343[a]	408	328	371[a]
170893	W.F.	7/20/56	7/11/56	-	44.2	42.4	43.6	12.7	11.7	12.2	130	91	107	384	288	339[a]	432	336	382[a]
Current Mill Average:							43.4			12.4			104			342			374
Cumulative Mill Average:							43.0			12.4			110			360			388
Mill Factor, %							100.9			100.0			94.5			95.0			96.4
Mill Index, %							101.2			97.6			95.4			98.3			98.4

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XV

MILL M -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170689	W.F.	7/13/56	6/21/56	1	42.2	41.8	42.1	14.0	12.8	13.4	126	85	105	336	272	305	368	320	345[a]
170690	W.F.	7/13/56	6/23/56	1	44.2	42.6	43.9	14.6	13.5	13.9	140	82	112	400	304	339[a]	416	312	372[a]
170691	W.F.	7/13/56	6/25/56	1	44.6	44.0	44.2	15.0	13.8	14.4	120	85	105	440	304	370[a]	448	384	420[a]
170692	W.F.	7/13/56	6/27/56	1	43.6	42.0	42.3	14.0	13.0	13.4	133	89	112	368	288	332	400	336	369[a]
170693	W.F.	7/13/56	6/28/56	1	47.0	44.0	44.5	14.9	13.0	14.1	131	82	106	376	272	336[a]	464	336	380[a]
170694	W.F.	7/13/56	6/30/56	1	45.8	42.0	43.3	14.4	13.1	13.9	125	79	103	392	296	341[a]	448	320	379[a]
170695	W.F.	7/13/56	6/30/56	1	44.2	40.4	42.4	14.7	13.3	14.1	126	77	103	352	272	313[a]	376	304	349[a]
170696	W.F.	7/13/56	7/ 1/56	1	46.4	43.2	44.9	15.2	13.6	14.5	141	78	102	384	296	345[a]	480	336	374[a]
Current Mill Average:							43.5			14.0			106			335			374
Cumulative Mill Average:							43.4			13.6			105			329			364
Mill Factor, %							100.2			102.9			101.0			101.8			102.7
Mill Index, %							101.4			110.2			97.2			96.3			98.4

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XVI

MILL N -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170401	W.F.	7/ 2/56	6/20/56	-	42.4	41.0	41.9	12.9	11.2	12.0	121	75	108	392	312	343[a]	384	312	345[a]
170402	W.F.	7/ 2/56	6/20/56	-	42.0	40.4	41.7	12.8	11.4	12.1	122	94	110	400	296	347[a]	368	328	339[a]
171005	W.F.	7/27/56	7/ 2/56	-	43.2	42.0	42.6	14.0	13.0	13.2	122	83	107	360	320	335[a]	384	344	360[a]
171006	W.F.	7/27/56	7/ 2/56	-	43.4	41.8	42.6	13.7	12.8	13.2	120	92	107	432	336	364[a]	400	328	365[a]
Current Mill Average:							42.2			12.6			108			347			352
Cumulative Mill Average:							42.6			12.7			109			362			364
Mill Factor, %							99.1			99.2			99.1			95.9			96.7
Mill Index, %							98.4			99.2			99.1			99.7			92.6

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XVII

MILL O -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170600	S.F.	7/ 9/56	6/30/56	7	44.4	42.2	43.2	13.7	12.1	12.9	126	78	102	480	368	399[a]	464	360	398[a]
170922	S.F.	7/23/56	7/13/56	7	45.2	43.6	44.2	13.9	13.0	13.4	140	81	109	432	384	400	464	384	419[a]
Current Mill Average:							43.7			13.1			105			400			408
Cumulative Mill Average:							43.9			13.1			104			398			396
Mill Factor, %							99.5			100.0			101.0			100.5			103.0
Mill Index, %							101.9			103.1			96.3			114.9			107.4

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XVIII

MILL P -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170405	WF1S	7/ 2/56	6/19/56	1	43.6	41.8	42.4	13.0	12.0	12.4	122	85	107	456	336	385[a]	448	368	403[a]
170406	WF1S	7/ 2/56	6/19/56	1	43.0	41.8	42.1	13.0	12.1	12.7	123	90	105	440	344	383[a]	424	352	392[a]
170407	WF1S	7/ 2/56	6/25/56	1	44.0	41.8	43.1	14.0	12.1	13.1	121	87	107	464	280	388	448	376	413[a]
170408	WF1S	7/ 2/56	6/26/56	1	43.4	41.0	42.4	13.2	11.5	12.4	110	78	96	496	312	390[a]	464	376	410[a]
170744	WF1S	7/16/56	7/ 5/56	1	42.0	40.4	41.6	13.0	11.9	12.2	115	81	100	384	328	355[a]	416	336	382[a]
170944	WF1S	7/24/56	7/16/56	1	43.6	42.0	42.3	13.9	11.8	12.8	125	74	103	424	296	349[a]	440	336	385[a]
Current Mill Average:							42.3			12.6			103			375			397
Cumulative Mill Average:							42.2			12.2			108			360			396
Mill Factor, %							100.2			103.3			95.4			104.2			100.3
Mill Index, %							98.6			99.2			94.5			107.8			104.5

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XIX

MILL Q -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Made Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
170400	W.	7/ 2/56	6/21/56	2	45.8	38.2	42.8	14.0	12.9	13.3	125	92	104	456	264	365[a]	408	320	371[a]
170919	W.	7/23/56	6/23/56	2	44.0	42.2	43.3	13.1	12.2	12.9	132	100	109	368	296	335	432	336	379[a]
170920	W.	7/23/56	7/11/56	2	44.0	41.8	42.8	13.2	12.3	12.9	127	88	110	384	288	337[a]	400	344	370[a]
171003	W.	7/27/56	7/13/56	4	44.2	42.0	43.6	14.0	13.0	13.7	131	95	110	416	344	380[a]	448	360	387[a]
171004	W.	7/27/56	7/17/56	2	43.8	40.2	42.4	13.8	12.6	13.1	133	93	106	368	288	325	408	328	369[a]
Current Mill Average:							43.0			13.2			108			349			375
Cumulative Mill Average:							43.0			13.1			110			362			388
Mill Factor, %							100.0			100.8			98.2			96.4			96.6
Mill Index, %							100.2			103.9			99.1			100.3			98.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XX

MILL R -- MISCELLANEOUS

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	Elmendorf Tear, g./sheet In Max.	Elmendorf Tear, g./sheet In Min.	Elmendorf Tear, g./sheet In Av.	Elmendorf Tear, g./sheet Across Max.	Elmendorf Tear, g./sheet Across Min.	Elmendorf Tear, g./sheet Across Av.
47-lb. Drum Linerboard																			
170412	W.F.	7/ 2/56	6/28/56	2	48.0	46.4	47.3	14.3	13.2	13.8	105	71	92	416	320	371[a]	416	312	369[a]
Current Mill Average:							47.3			13.8			92			371			369
Cumulative Mill Average:							47.1			14.3			100			387			394
Mill Factor, %							100.4			96.5			92.0			95.9			93.7

33-lb. Linerboard

The 33-lb. linerboard sample which was reported to have been mailed by the company was not received at the Institute. The mill data sheet for this sample was included in the package which contained the first of the 38-lb. samples.

38-lb. Linerboard

170676	WF1S	7/12/56	7/ 6/56	2	40.6	39.6	40.0	12.2	11.7	11.9	121	90	105	336	272	301	376	288	321
170915	WF1S	7/23/56	7/19/56	2	38.4	36.6	37.5	11.9	10.6	11.3	106	81	93	376	256	307[a]	336	240	273[a]

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XXI, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XXI

	Preconditioning			Conditioning		
Code	R.H., %	Temp., °F.	Time, hr.	R.H., %	Temp., °F.	Time, hr.
A		None		51-53	73-74	--
B		None		50	73	24
C		None		64-78	76-85	--
D		None		50	73	24
E	46-68	72-80	0.5	50	70	24-48
F	60-70	74-79	2-20	58-70	74-75	1-2
G	30	78	8	50-51	72	16
H		None		50	73	24
I	50	73	24	50	73	24
J		None		56	79	--
K		No data submitted.				
L	50	73	48	50	73	48
M	50	73	72-288	50	73	72-288
N		None		50	73	0.5
O	50	72-73	24		None	
P	50	73	24	50	73	24
Q		None		58-63	72-80	--

A summary of the Institute and mill test results for the current period is shown in Table XXII, and a comparison of differences between Institute and mill test results is given in Table XXIII for the current period and the two previous periods. The comparisons are given in Tables XXIV to XXXX, for the 42-lb. liner samples. A comparison of the special

drum stock is given in Table XLI. In all the comparisons given in Tables XXII to XLI, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XXII and XXIII reveals the level of agreement between mill and Institute data for basis weight, caliper, bursting strength, and Elmendorf tear. Table XXII shows the average difference encountered in the comparison of Institute and mill test results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XXIII, the average differences shown for each test in Table XXII have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XXIII that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is two per cent for the current period. By comparison, the maximum percentage variation noted for the previous two periods was also two per cent. A variation of the magnitude of two per cent indicates that the agreement between Institute and mill test results is satisfactory. Further, it may be noted that the average basis weight results for Mills B, E, F, G, H, I, L, and N are higher than those for the Institute, and the average results for the other mills are lower. None of the variations encountered appear to be exorbitant.

The maximum variation in caliper for the current period is five per cent. This variation is comparable to the maximum variations for the

previous two periods--namely, seven per cent. Compared with the Institute's test results, the test results for all mills are slightly lower with the exception of the results for Mills A and E which are the same as the Institute, and the result for Mill L which is slightly higher. None of the variations appear to be excessive with the possible exception of the variations noted for Mills J and Q.

It may be noted in Table XXIII that the bursting strength results exhibit a maximum variation of ten per cent (Mill I) for the current period. The average results for Mills A, B, C, D, E, G, I, M, P, and Q are higher than those for the Institute, the results for Mills J, L, and O are the same, and the results for the other mills are lower. The variation noted for Mill I appears to be excessive.

It may be seen in Tables XXII and XXIII that the average machine direction tear results for Mills A, E, F, I, L, N, P, and Q are higher than those for the Institute, and the results for the other mills are lower. The maximum variation for the current period is seventeen per cent. The difference encountered for Mills L and M appear to be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills A, C, D, E, F, I, J, L, N, O, P, and Q are higher than those for the Institute, and the average results for the other mills are lower. The maximum variation for the current period is twenty-one per cent. The variations noted for Mills F, L, N, and P appear to be excessive.

TABLE XXII

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

	Mills*																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
No. of Samples Compared	4	8	8	8	6	2	9	1	8	1	2	4	8	4	2	6	5
Basis Weight																	
Institute	42.5	42.5	42.5	43.3	42.7	43.7	42.7	42.0	43.8	43.2	42.4	43.4	43.5	42.2	43.7	42.3	43.0
Mill	42.4	43.4	41.6	42.7	43.0	44.4	42.8	42.1	44.2	42.5		43.5	43.2	42.6	43.4	42.1	42.7
Av. Diff.**	-0.1	+0.9	-0.9	-0.6	+0.3	+0.7	+0.1	+0.1	+0.4	-0.7		+0.1	-0.3	+0.4	-0.3	-0.2	-0.3
Max. Diff.***	-0.5	+1.5	-1.6	-0.8	+0.6	+0.9	-1.6	+0.1	+0.8	-0.7		+0.3	-0.7	+0.7	-0.6	-0.4	-0.6
Caliper																	
Institute	12.1	12.3	13.5	12.3	13.1	13.8	12.3	11.6	12.4	12.7	12.0	12.4	14.0	12.6	13.1	12.6	13.2
Mill	12.1	12.1	13.0	12.1	13.1	13.2	12.1	11.5	11.9	12.1		12.6	13.5	12.4	12.8	12.3	12.6
Av. Diff.**	0.0	-0.2	-0.5	-0.2	0.0	-0.6	-0.2	-0.1	-0.5	-0.6		+0.2	-0.5	-0.2	-0.3	-0.3	-0.6
Max. Diff.***	-0.1	-0.2	-0.9	-0.5	±0.1	-0.7	-0.5	-0.1	-0.6	-0.6		+0.3	-0.8	-0.4	-0.3	-0.5	-0.7
Bursting Strength																	
Institute	108	106	113	108	106	107	110	104	110	109	101	104	106	108	105	103	108
Mill	111	111	115	111	109	102	111	100	121	109		104	109	107	105	108	110
Av. Diff.**	+3	+5	+2	+3	+3	-5	+1	-4	+11	0		0	+3	-1	0	+5	+2
Max. Diff.***	+7	+10	+7	+8	+6	-12	+6	-4	+17	0		+3	+6	-4	±1	+10	+7
Tearing Strength, in																	
Institute	305	334	318	322	316	333	346	353	329	330	374	342	335	347	400	375	349
Mill	325	321	312	313	320	350	332	323	353	308		400	294	354	389	398	369
Av. Diff.**	+20	-13	-6	-9	+4	+17	-14	-30	+24	-22		+58	-41	+7	-11	+23	+20
Max. Diff.***	+33	-29	-28	-37	+19	+20	-51	-30	+48	-22		+66	-62	+40	-14	+50	+34
Tearing Strength, across																	
Institute	366	379	378	360	360	373	366	375	374	363	399	374	374	352	408	397	375
Mill	397	365	398	365	371	424	359	360	404	392		412	354	386	430	479	407
Av. Diff.**	+31	-14	+20	+5	+11	+51	-7	-15	+30	+29		+38	-20	+34	+22	+82	+32
Max. Diff.***	+49	-38	+58	+25	+25	+70	+42	-15	+44	+29		+39	-51	+62	+22	+113	+43

* Comparison based on averages involved only those samples on which mill test data were submitted.
** Average difference is the difference between the Institute mill average and the mill average based on mill test data.
*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XXIII

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS
Average Difference, per cent

Mill	Period	Basis Weight	Caliper	Bursting Strength	Tearing Strength, In	Across
A	Current	-0.2	0	+3	+7	+8
	108th	-0.7	-2	+0.9	+11	+7
	107th	-1	-2	+2	+4	+4
B	Current	+2	-2	+5	-4	-4
	108th	+2	-0.8	+2	-7	-5
	107th	+2	-2	+2	-1	0
C	Current	-2	-4	+2	-2	+5
	108th	-1	-2	-0.9	-6	-2
	107th	-0.9	-2	-5	-5	+0.3
D	Current	-1	-2	+3	-3	+1
	108th	-2	-2	+6	+4	+3
	107th	-0.7	-2	+5	-4	+2
E	Current	+0.7	0	+3	+1	+3
	108th	-0.2	-0.8	0	-2	+6
	107th	0	+0.8	+0.9	-0.3	+1
F	Current	+2	-4	-5	+5	+14
	108th	0	-5	-9	+7	+17
	107th	+0.2	-2	-8	-3	+7
G	Current	+0.2	-2	+0.9	-4	-2
	108th	+0.2	-2	+2	-5	-0.8
	107th	+0.7	0	+2	+2	+3
H	Current	+0.2	-0.9	-4	-8	-4
	108th	-0.2	-3	-2	-4	-6
	107th	-0.9	-2	-5	-2	-1
I	Current	+0.9	-4	+10	+7	+8
	108th	-0.2	-5	+6	+11	+12
	107th	+0.5	-3	+7	+7	+10
J	Current	-2	-5	0	-7	+8
	108th	+1	-3	+4	-2	+8
	107th	+1	-7	+6	-4	+3
K	Current	--	--	--	--	--
	108th	-0.5	-3	+6	+3	-0.7
	107th	+0.5	-3	+7	0	-1
L	Current	+0.2	+2	0	+17	+10
	108th	-0.9	-2	0	+8	+5
	107th	+0.2	-2	-1	+4	+4
M	Current	-0.7	-4	+3	-12	-5
	108th	-0.9	-4	+4	-16	-8
	107th	-0.2	-3	+4	-14	-6
N	Current	+0.9	-2	-0.9	+2	+10
	108th	+0.5	-4	-3	-5	+7
	107th	+0.7	-3	-3	+0.6	+10
O	Current	-0.7	-2	0	-3	+5
	108th	+0.5	-2	+6	-4	+6
	107th	-0.9	-2	+2	-10	+7
P	Current	-0.5	-2	+5	+6	+21
	108th	-0.7	-4	+2	+6	+14
	107th	+0.5	-2	-2	+7	+19
Q	Current	-0.7	-5	+2	+6	+9
	108th	-0.5	-2	-4	+4	+2
	107th	-0.7	-4	0	-3	-0.3

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956

TABLE XXIV

MILL A -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170420	WF1S	6/25/56	1	42.4	42.4	0.0	12.1	12.1	0.0	105	112	+ 7	313[a]	329	+16	354[a]	403	+49
170415	WF1S	6/28/56	1	42.7	42.2	-0.5	12.1	12.1	0.0	109	110	+ 1	299	332	+33	365[a]	399	+34
170609	WF1S	7/ 5/56	1	42.5	42.4	-0.1	12.1	12.1	0.0	109	113	+ 4	301[a]	319	+18	371[a]	389	+18
170918	WF1S	7/ 6/56	1	42.4	42.6	+0.2	12.2	12.1	-0.1	108	110	+ 2	305[a]	320	+15	371[a]	397	+26
Current Mill Average:				42.5	42.4	-0.1	12.1	12.1	0.0	108	111	+ 3	305	325	+20	366	397	+31

TABLE XXV

MILL B -- 42-LB. LINERBOARD

170413	W.F.	6/26/56	2	42.1	42.7	+0.6	12.1	12.0	-0.1	113	113	0	348[a]	341	- 7	400[a]	383	-17
170414	W.F.	6/27/56	2	43.1	42.9	-0.2	12.4	12.2	-0.2	100	104	+ 4	320	303	-17	369[a]	331	-38
170627	W.F.	7/ 2/56	2	42.4	43.7	+1.3	12.2	12.1	-0.1	108	113	+ 5	345[a]	332	-13	382[a]	377	- 5
170628	W.F.	7/ 3/56	2	42.3	43.8	+1.5	12.1	12.1	0.0	106	113	+ 7	331[a]	323	- 8	386[a]	383	- 3
170745	W.F.	7/ 8/56	2	42.4	43.9	+1.5	12.2	12.0	-0.2	107	113	+ 6	351	330	-21	382[a]	376	- 6
170746	W.F.	7/ 9/56	2	42.6	43.2	+0.6	12.6	12.5	-0.1	99	109	+10	357[a]	328	-29	384[a]	373	-11
170916	W.F.	7/15/56	2	42.8	43.7	+0.9	12.4	12.2	-0.2	104	108	+ 4	303[a]	307	+ 4	339[a]	339	0
170917	W.F.	7/15/56	2	42.6	43.4	+0.8	12.1	11.9	-0.2	111	115	+ 4	317[a]	306	-11	388[a]	361	-27
Current Mill Average:				42.5	43.4	+0.9	12.3	12.1	-0.2	106	111	+ 5	334	321	-13	379	365	-14

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXVI

MILL C -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170403		6/ 4/56	1	42.5	41.3	-1.2	13.6	12.9	-0.7	117	119	+2	312[a]	317	+ 5	380[a]	438	+58
170404		6/ 8/56	1	42.9	41.3	-1.6	13.6	12.9	-0.7	115	118	+3	312	327	+15	383[a]	429	+46
170417		6/11/56	1	42.2	41.8	-0.4	13.4	13.0	-0.4	111	111	0	334[a]	306	-28	377[a]	382	+ 5
170418		6/14/56	1	42.5	42.0	-0.5	13.6	12.7	-0.9	110	114	+4	321[a]	298	-23	377[a]	389	+12
170421		6/19/56	1	42.0	41.5	-0.5	13.0	12.8	-0.2	108	115	+7	330[a]	313	-17	374[a]	381	+ 7
170422		6/23/56	1	42.2	41.8	-0.4	12.8	12.3	-0.5	119	119	0	317[a]	317	0	379[a]	407	+28
170748		6/26/56	1	42.6	41.7	-0.9	13.7	13.3	-0.4	113	113	0	299	299	0	374[a]	375	+ 1
170749		6/29/56	1	43.0	41.7	-1.3	14.1	13.8	-0.3	110	111	+1	319	319	0	378[a]	384	+ 6
Current Mill Average:				42.5	41.6	-0.9	13.5	13.0	-0.5	113	115	+2	318	312	- 6	378	398	+20

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXVII

MILL D -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170410	W.F.	6/25/56	1	43.2	42.7	-0.5	12.3	12.0	-0.3	113	110	-3	331[a]	306	-25	355[a]	356	+ 1
170411	W.F.	6/26/56	1	43.7	43.0	-0.7	12.6	12.1	-0.5	110	111	+1	346[a]	321	-25	363[a]	359	- 4
170671	W.F.	7/ 2/56	2	43.2	42.4	-0.8	12.3	12.1	-0.2	106	109	+3	332	323	- 9	373[a]	385	+12
170672	W.F.	7/ 2/56	2	43.3	42.5	-0.8	12.0	12.1	+0.1	108	110	+2	325[a]	317	- 8	364[a]	365	+ 1
170771	W.F.	7/ 8/56	1	43.4	43.0	-0.4	12.0	12.2	+0.2	103	108	+5	317[a]	320	+ 3	339[a]	364	+25
170772	W.F.	7/10/56	1	42.9	42.7	-0.2	12.7	12.4	-0.3	103	111	+8	294[a]	327	+33	348[a]	367	+19
170980	W.F.	7/15/56	2	42.8	42.7	-0.1	12.0	12.1	+0.1	111	117	+6	322	285	-37	371[a]	361	-10
170981	W.F.	7/19/56	1	43.7	42.9	-0.8	12.3	12.1	-0.2	108	110	+2	310[a]	306	- 4	370[a]	363	- 7
Current Mill Average:				43.3	42.7	-0.6	12.3	12.1	-0.2	108	111	+3	322	313	- 9	360	365	+ 5

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXVIII

MILL E -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170399	W.F.	6/19/56	1	42.5	42.8	+0.3	13.2	13.1	-0.1	106	107	+ 1	319	314	- 5	347[a]	361	+14
170419	W.F.	6/28/56	1	42.5	42.9	+0.4	13.1	13.2	+0.1	104	109	+ 5	320[a]	321	+ 1	371[a]	371	0
170921	W.F.	7/ 2/56	1	43.0	43.6	+0.6	13.1	13.1	0.0	104	108	+ 4	312[a]	324	+12	362[a]	367	+ 5
170941	W.F.	7/10/56	1	42.7	43.0	+0.3	13.2	13.2	0.0	111	109	- 2	317	321	+ 4	357[a]	382	+25
170942	W.F.	7/12/56	1	42.2	42.8	+0.6	13.1	13.2	+0.1	101	107	+ 6	331	322	- 9	367[a]	381	+14
170995	W.F.	7/16/56	1	43.2	43.0	-0.2	13.0	13.0	0.0	112	117	+ 5	300[a]	319	+19	359[a]	366	+ 7
Current Mill Average:				42.7	43.0	+0.3	13.1	13.1	0.0	106	109	+ 3	316	320	+ 4	360	371	+11

TABLE XXIX

MILL F -- 42-LB. LINERBOARD

170416	WF1S	6/27/56	1	43.8	44.7	+0.9	13.0	12.6	-0.4	114	102	-12	328[a]	348	+20	373[a]	443	+70
170943	WF1S	7/19/56	1	43.6	44.1	+0.5	14.6	13.9	-0.7	100	102	+ 2	338[a]	352	+14	373[a]	405	+32
Current Mill Average:				43.7	44.4	+0.7	13.8	13.2	-0.6	107	102	- 5	333	350	+17	373	424	+51

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXX

MILL G -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170642	S.F.	7/ 1/56	4	42.3	42.5	+0.2	12.2	12.4	+0.2	108	106	-2	378[a]	327	-51	352[a]	336	-16
170643	W.F.	7/ 2/56	4	43.0	42.6	-0.4	12.3	12.3	0.0	114	110	-4	338[a]	325	-13	389[a]	363	-26
170644	W.F.	7/ 3/56	4	43.4	41.8	-1.6	12.0	11.9	-0.1	117	116	-1	341[a]	324	-17	362[a]	345	-17
170912	W.F.	7/15/56	-	42.2	42.6	+0.4	12.9	12.6	-0.3	103	108	+5	385[a]	376	- 9	366[a]	363	- 3
170913	W.F.	7/16/56	-	43.3	44.4	+1.1	12.3	12.4	+0.1	105	107	+2	353[a]	356	+ 3	363[a]	405	+42
170914	W.F.	7/17/56	-	42.3	42.5	+0.2	11.9	11.6	-0.3	114	112	-2	325[a]	324	- 1	355[a]	347	- 8
170998	W.F.	7/18/56	-	44.2	45.1	+0.9	12.6	12.2	-0.4	119	122	+3	335[a]	324	-11	390[a]	388	- 2
170999	W.F.	7/19/56	-	41.2	40.8	-0.4	12.4	11.9	-0.5	108	108	0	335[a]	312	-23	361[a]	328	-33
171000	W.F.	7/20/56	-	42.8	42.9	+0.1	11.8	12.0	+0.2	104	110	+6	324[a]	320	- 4	354[a]	353	- 1
Current Mill Average:				42.7	42.8	+0.1	12.3	12.1	-0.2	110	111	+1	346	332	-14	366	359	- 7

TABLE XXXI

MILL H -- 42-LB. LINERBOARD

170409	W.F.	6/ 8/56	4	42.0	42.1	+0.1	11.6	11.5	-0.1	104	100	-4	353[a]	323	-30	375[a]	360	-15
Current Mill Average:				42.0	42.1	+0.1	11.6	11.5	-0.1	104	100	-4	353	323	-30	375	360	-15

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXXII

MILL I -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170423	W.F.	6/20/56[b]	2	43.7	44.0	+0.3	12.7	12.1	-0.6	105	111	+ 6	315[a]	363	+48	377[a]	414	+37
170424	W.F.	6/20/56	2	43.6	44.0	+0.4	12.3	11.9	-0.4	116	129	+13	308[a]	335	+27	377[a]	405	+28
170673	W.F.	6/20/56	2	43.2	43.7	+0.5	12.1	11.9	-0.2	114	131	+17	310[a]	335	+25	377[a]	401	+24
170674	W.F.	6/20/56	2	43.5	44.3	+0.8	12.4	11.8	-0.6	116	128	+12	318[a]	349	+31	364[a]	408	+44
170675	W.F.	6/26/56	1	44.0	44.1	+0.1	12.5	12.0	-0.5	106	119	+13	343[a]	356	+13	371	408	+37
170825	W.F.	6/26/56	1	44.2	44.5	+0.3	12.5	11.9	-0.6	112	118	+ 6	343[a]	361	+18	377[a]	395	+18
170826	W.F.	6/26/56	1	44.2	44.8	+0.6	12.4	11.9	-0.5	105	118	+13	345[a]	362	+17	379[a]	414	+35
170827	W.F.	6/26/56	1	44.2	44.3	+0.1	12.5	12.0	-0.5	106	116	+10	348[a]	364	+16	371[a]	391	+20
Current Mill Average:				43.8	44.2	+0.4	12.4	11.9	-0.5	110	121	+11	329	353	+24	374	404	+30

TABLE XXXIII

MILL J -- 42-LB. LINERBOARD

170747	WFlS	7/12/56	2	43.2	42.5	-0.7	12.7	12.1	-0.6	109	109	0	330[a]	308	-22	363[a]	392	+29
Current Mill Average:				43.2	42.5	-0.7	12.7	12.1	-0.6	109	109	0	330	308	-22	363	392	+29

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

[b]This date appeared on the sample received by the Institute. The mill data sheet gives the date of manufacture as June 2, 1956.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXXIV

MILL K -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
171001		6/19/56		41.9			11.8			101			371[a]			391[a]		
171002		6/27/56		43.0			12.2			101			377[a]			407[a]		
Current Mill Average:				42.4			12.0			101			374			399		

TABLE XXXV

MILL L -- 42-LB. LINERBOARD

170890	W.F.	7/ 9/56	-	43.3	43.5	+0.2	12.8	12.9	+0.1	102	105	+3	344[a]	405	+61	383[a]	421	+38
170891	W.F.	7/ 9/56	-	43.3	43.6	+0.3	12.6	12.9	+0.3	101	102	+1	343[a]	385	+42	361[a]	400	+39
170892	W.F.	7/11/56	-	43.4	43.5	+0.1	12.1	12.2	+0.1	107	105	-2	343[a]	404	+61	371[a]	408	+37
170893	W.F.	7/11/56	-	43.6	43.5	-0.1	12.2	12.2	0.0	107	105	-2	339[a]	405	+66	382[a]	417	+35
Current Mill Average:				43.4	43.5	+0.1	12.4	12.6	+0.2	104	104	0	342	400	+58	374	412	+38

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXXVI

MILL M -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170689	W.F.	6/21/56	1	42.1	41.8	-0.3	13.4	13.0	-0.4	105	106	+1	305	260	-45	345[a]	319	-26
170690	W.F.	6/23/56	1	43.9	43.9	0.0	13.9	13.5	-0.4	112	114	+2	339[a]	290	-49	372[a]	344	-28
170691	W.F.	6/25/56	1	44.2	44.5	+0.3	14.4	14.1	-0.3	105	109	+4	370[a]	308	-62	420[a]	369	-51
170692	W.F.	6/27/56	1	42.3	42.4	+0.1	13.4	13.0	-0.4	112	112	0	332	299	-33	369[a]	351	-18
170693	W.F.	6/28/56	1	44.5	44.0	-0.5	14.1	13.7	-0.4	106	111	+5	336[a]	300	-36	380[a]	365	-15
170694	W.F.	6/30/56	1	43.3	42.8	-0.5	13.9	13.1	-0.8	103	109	+6	341[a]	285	-56	379[a]	357	-22
170695	W.F.	6/30/56	1	42.4	41.8	-0.6	14.1	13.6	-0.5	103	103	0	313[a]	291	-22	349[a]	357	+ 8
170696	W.F.	7/ 1/56	1	44.9	44.2	-0.7	14.5	14.2	-0.3	102	106	+4	345[a]	315	-30	374[a]	368	- 6
Current Mill Average:				43.5	43.2	-0.3	14.0	13.5	-0.5	106	109	+3	335	294	-41	374	354	-20

TABLE XXXVII

MILL N -- 42-LB. LINERBOARD

170401	W.F.	6/20/56	-	41.9	41.9	0.0	12.0	11.8	-0.2	108	107	-1	343[a]	328	-15	345[a]	357	+12
170402	W.F.	6/20/56	-	41.7	41.8	+0.1	12.1	11.7	-0.4	110	106	-4	347[a]	327	-20	339[a]	353	+14
171005	W.F.	7/ 2/56	-	42.6	43.3	+0.7	13.2	13.0	-0.2	107	109	+2	335[a]	375	+40	360[a]	422	+62
171006	W.F.	7/ 2/56	-	42.6	43.2	+0.6	13.2	13.0	-0.2	107	108	+1	364[a]	386	+22	365[a]	414	+49
Current Mill Average:				42.2	42.6	+0.4	12.6	12.4	-0.2	108	107	-1	347	354	+ 7	352	386	+34

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XXXVIII

MILL O -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170600	S.F.	6/30/56	7	43.2	43.1	-0.1	12.9	12.6	-0.3	102	101	-1	399[a]	385	-14	398[a]	418	+20
170922	S.F.	7/13/56	7	44.2	43.6	-0.6	13.4	13.1	-0.3	109	110	+1	400	392	- 8	419[a]	441	+22
Current Mill Average:				43.7	43.4	-0.3	13.1	12.8	-0.3	105	105	0	400	389	-11	408	430	+22

TABLE XXXIX

MILL P -- 42-LB. LINERBOARD

170405	WFlS	6/19/56	1	42.4	42.0	-0.4	12.4	12.1	-0.3	107	105	-2	385[a]	400	+15	403[a]	474	+71
170406	WFlS	6/19/56	1	42.1	42.0	-0.1	12.7	12.2	-0.5	105	111	+6	383[a]	399	+16	392[a]	466	+74
170407	WFlS	6/25/56	1	43.1	42.9	-0.2	13.1	12.7	-0.4	107	110	+3	388	410	+22	413[a]	492	+79
170408	WFlS	6/26/56	1	42.4	42.1	-0.3	12.4	12.4	0.0	96	106	+10	390[a]	394	+ 4	410[a]	462	+52
170744	WFlS	7/ 5/56	1	41.6	41.4	-0.2	12.2	12.0	-0.2	100	103	+3	355[a]	386	+31	382[a]	480	+98
170944	WFlS	7/16/56	1	42.3	42.4	+0.1	12.8	12.5	-0.3	103	110	+7	349[a]	399	+50	385[a]	498	+113
Current Mill Average:				42.3	42.1	-0.2	12.6	12.3	-0.3	103	108	+5	375	398	+23	397	479	+82

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XL

MILL Q -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
170400	W.	6/21/56	2	42.8	42.8	0.0	13.3	12.8	-0.5	104	101	-3	365[a]	399	+34	371[a]	407	+36
170919	W.	6/23/56	2	43.3	42.9	-0.4	12.9	12.3	-0.6	109	107	-2	335	353	+18	379[a]	412	+33
170920	W.	7/11/56	2	42.8	42.6	-0.2	12.9	12.4	-0.5	110	115	+5	337[a]	360	+23	370[a]	413	+43
171003	W.	7/13/56	4	43.6	43.0	-0.6	13.7	13.1	-0.6	110	116	+6	380[a]	375	- 5	387[a]	412	+25
171004	W.	7/17/56	2	42.4	42.2	-0.2	13.1	12.4	-0.7	106	113	+7	325	357	+32	369[a]	389	+20
Current Mill Average:				43.0	42.7	-0.3	13.2	12.6	-0.6	108	110	+2	349	369	+20	375	407	+32

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--JULY 1 THROUGH JULY 31, 1956 (continued)

TABLE XLI

MILL R -- MISCELLANEOUS

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
47-lb. Drum Linerboard																		
170412	W.F.	6/28/56	2	47.3	46.2	-1.1	13.8	13.3	-0.5	92	88	-4	371[a]	388	+17	369[a]	435	+66
Current Mill Average:				47.3	46.2	-1.1	13.8	13.3	-0.5	92	88	-4	371	388	+17	369	435	+66
33-lb. Linerboard																		
The 33-lb. linerboard sample which was reported to have been mailed by the company was not received at the Institute. The mill data sheet for this sample was included in the package which contained the first of the 38-lb. samples.																		
38-lb. Linerboard																		
170676	WF1S	7/ 6/56	2	40.0	40.0	0.0	11.9	11.5	-0.4	105	100	-5	301	290	-11	321	372	+51
170915	WF1S	7/19/56	2	37.5	38.0	+0.5	11.3	10.7	-0.6	93	97	+4	307[a]	295	-12	273[a]	301	+28

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.